CLAIMS

What is claimed is:

1.       A scheduling system adapted to avoid scheduling conflicts for use with
5    a hand-held remote control device integrated with multiple information sources,
comprising:

an electronic schedule of personal events adapted to commonly
schedule electronic media events with scheduled personal events;

a user interface adapted to simultaneously communicate scheduled
10   personal events and available electronic media events to a user, wherein the
scheduled personal events and the available electronic media events have predefined
times and durations; and

a scheduling module adapted to identify and resolve a conflict between
an electronic media event and a scheduled personal event.

15       2.       The system of claim 1, wherein said scheduling module is adapted to
inform the user of the conflict between the electronic media event and the scheduled
personal event.

3.       The system of claim 1, wherein said scheduling module is adapted to
control a media recording device to record the electronic media event that conflicts
20   with the scheduled personal event.

4.       The system of claim 1, comprising an input receptive of electronic
programming guide information identifying available electronic media events.

5.       The system of claim 1, comprising a usage pattern analysis module
adapted to anticipate user preferences relating to electronic media event consumption
25   based on analysis of previous user consumption of electronic media events.

6.       The system of claim 1, comprising a media clip storage module adapted
to store a media clip related to an electronic media event in association with additional
information relating to the electronic media event.

7.       A clip organization system adapted to organize media-related
30   information for use with a hand-held device, comprising:

an input receptive of media-related information extracted from a
television broadcast stream;

a data store storing the media-related information; and

an electronic index organizing the media-related information to facilitate
35   retrieval of the media related information by the user.

8.	The system of claim 7, wherein the media-related information corresponds to at least one of:

(a)	information text;

(b)	a still image;

(c)	a file adapted to produce moving images; and

(d)	computer software.

9.	The system of claim 7, wherein the media-related information corresponds to at least one of:

(a)	an electronic coupon;

(b)	a hyperlink adapted to accessing a computer network;

(c)	a sports highlight;

(d)	a game;

(e)	an advertisement; and

(f)	local information.

10.	The system of claim 7, wherein said electronic index is adapted to associate the media-related information in computer memory with an identification of a television program a user enjoyed in a course of receiving the media-related information.

11.	The system of claim 7, wherein said is adapted to associate the media-related information in computer memory with at least one of a user-specified category and a user-defined label.

12.	A remote control system adapted to control electronic media devices for use with a had-held remote control device, comprising:

a data store storing information relating to electronic media event consumption via the electronic media devices;

a usage pattern analysis module adapted to perform an analysis of previous user consumption of electronic media events via electronic media devices, and adapted to anticipating user preferences relating to electronic media event consumption via the electronic media devices based on the analysis; and

a user interface adapted to acting on anticipation of user preferences to accomplish improved enjoyment of media content by the user via the electronic media devices.

13.	The system of claim 12, wherein said user pattern analysis module is adapted to observing a routine of the user respective to enjoyment of media content, and realize that the user has deviated from the routine, and said user interface is

adapted to reminding the user of user behavior associated with the routine that conflicts with user deviation from the routine.

14.     The system of claim 13, wherein said user pattern analysis module is adapted to observe operational settings employed by the user with respect to the electronic media devices, and said user interface is adapted to set default operational settings for controlling the electronic media devices according to the operational settings employed by the user, thereby affecting control of the electronic media devices according to the default operational settings.

15.     An information delivery system adapted to delivering program-related information content to a user via a hand-held device, comprising:

a data decoder adapted to extract program-related information content from a broadcast signal;

a parser adapted to identify a category associated with the program-related information content; and

a user interface adapted to employ a template assigned to the category to display the program-related information content to the user via an active display of the hand-held device.

16.     The system of claim 15, wherein said data decoder is adapted to extract an advertisement co-broadcast with a television program.

17.     The system of claim 15, wherein said data decoder is adapted to extract an electronic coupon co-broadcast with a television program.

18.     The system of claim 15, wherein said data decoder is adapted to extract a game for the user to play that is co-broadcast with a television program.

19.     The system of claim 18, wherein said data decoder is adapted to extract an electronic coupon providing a discount on an advertised product, wherein the game is adapted to award the electronic coupon to the user in connection with the user playing the game.

20.     A user interface system for use with a hand-held apparatus, comprising:

a handwriting recognition module adapted to recognize a handwritten user query;

a handwriting matching engine adapted to match the query to a plurality of options including at least one of available electronic media events and broadcast channels rendering the electronic media events available to the user; and

an active display communicating the plurality of options to the user as a list of ranked options.

21.    The system of claim 20 comprising:

an input adapted to    receive a user selection of a ranked option; and

a command module adapted to control an electronic media device to receive a broadcast channel based on the user selection.

5    22.    The system of claim 20 comprising:

an input adapted to receive a user selection of a ranked option; and

a training engine operable to adapt future recognition of handwritten user queries based on the user selection of the ranked option.

23.    The system of claim 20 comprising a translation engine adapted to

10    translate the plurality of options into a language of the user.

24.    An electronic programming guide maintenance system for use with a hand-held device, comprising:

an input receptive of identifications of available electronic media content, wherein the identifications are extracted from a broadcast signal

15    operable to deliver the available electronic media content;

a second input in communication with a communications system having electronic programming guide information providing details relating to the available media content; and

a synchronization engine adapted to construct and maintain links

20    between the identifications of available electronic media content and related electronic programming guide information.

25.    The system of claim 24 comprising a user interface adapted to display multiple levels of progressively more detailed information relating to the available media content, wherein a user selecting an identification of available media content

25    receives more detailed information relating to the available media content via a link to related programming guide information.

26.    A method of avoiding scheduling conflicts for use with a hand-held remote control device integrated with multiple information sources, comprising:

maintaining an electronic schedule of personal events, wherein the

30    electronic schedule is adapted to commonly schedule electronic media events with scheduled personal events;

simultaneously communicating scheduled personal events and available electronic media events to a user, wherein the scheduled personal events and the available electronic media events have predefined times and durations; and

identifying and resolving a conflict between an electronic media event and a scheduled personal event.

27.     The method of claim 26, comprising informing the user of the conflict between the electronic media event and the scheduled personal event.

28.     The method of claim 26, comprising controlling a media recording device to record the electronic media event that conflicts with the scheduled personal event.

29.     The method of claim 26, comprising obtaining electronic programming guide information identifying available electronic media events.

30.     The method of claim 26, comprising anticipating user preferences relating to electronic media event consumption based on analysis of previous user consumption of electronic media events.

31.     The method of claim 26, comprising storing a media clip related to an electronic media event in association with additional information relating to the electronic media event.

32.     A method of organizing media-related information for use with a hand-held device, comprising:

receiving media-related information extracted from a television broadcast stream;

storing the media-related information in computer memory; and

organizing the media-related information to facilitate retrieval of the media related information by the user.

33.     The method of claim 32, wherein said receiving media-related information includes receiving at least one of:

(a)     information text;

(b)     a still image;

(c)     a file adapted to produce moving images;

(d)     computer software; and

(e)     audio.

34.     The method of claim 32, wherein said receiving media-related information includes receiving at least one of:

(a)     an electronic coupon;

(b)     a hyperlink adapted to accessing a computer network;

(c)     a sports highlight;

(d)   a game; and

(e)   an advertisement.

35.   The method of claim 32, wherein said organizing the media-related information includes associating the media-related information in computer memory with an identification of a television program a user enjoyed in a course of receiving the media-related information.

36.   The method of claim 32, wherein said organizing the media-related information includes associating the media-related information in computer memory with at least one of a user-specified category and a user-defined label.

37.   A method of controlling electronic media devices for use with a had-held remote control device, comprising:

performing an analysis of previous user consumption of electronic media events via electronic media devices, wherein the electronic media devices were operated by the user via the hand-held remote control device;

anticipating user preferences relating to electronic media event consumption via the electronic media devices based on the analysis; and

acting on anticipation of user preferences to accomplish improved enjoyment of media content by the user via the electronic media devices.

38.   The method of claim 37, wherein said performing an analysis includes observing a routine of the user respective to enjoyment of media content, said anticipating user preferences includes realizing that the user has deviated from the routine, and said acting on anticipation of user preferences includes reminding the user of user behavior associated with the routine that conflicts with user deviation from the routine.

39.   The method of claim 37, wherein said performing an analysis includes observing operational settings employed by the user with respect to the electronic media devices, said anticipating user preferences includes setting default operational settings for controlling the electronic media devices according to the operational settings employed by the user, and said acting on anticipation of user preferences includes automatically controlling the electronic media devices according to the default operational settings.

40.   A method of delivering program-related information content to a user via a hand-held device, comprising:

extracting program-related information content from a broadcast signal;

identifying a category associated with the program-related information content; and

using a pre-defined template assigned to the category to display the program-related information content to the user via an active display of the hand-held

5    device.

41.    The method of claim 40, wherein said extracting program-related information content includes extracting an advertisement co-broadcast with a television program.

42.    The method of claim 40, wherein said extracting program-related

10   information content includes extracting an electronic coupon co-broadcast with a television program.

43.    The method of claim 40, wherein said extracting program-related information content includes extracting a game for the user to play that is co-broadcast with a television program.

15   44.    The method of claim 40, wherein said extracting program-related information content includes extracting an electronic coupon providing a discount on an advertised product, wherein the game is adapted to award the electronic coupon to the user in connection with the user playing the game.

45.    A method of providing a user interface for use with a hand-held

20   apparatus, comprising:

recognizing a handwritten user query;

matching the query to a plurality of options including at least one of available electronic media events and broadcast channels rendering the electronic media events available to the user; and

25   communicating the plurality of options to the user as a list of ranked options.

46.    The method of claim 45 comprising:

receiving a user selection of a ranked option; and

controlling an electronic media device to receive a broadcast channel

30   based on the user selection.

47.    The method of claim 45 comprising:

receiving a user selection of a ranked option; and

adapting future recognition of handwritten user queries based on the user selection of the ranked option.

48.     The method of claim 45, comprising translating the plurality of options into a language of the user.

49.     A method of maintaining an electronic programming guide for use with a hand-held device, comprising:

5          receiving identifications of available electronic media content, wherein the identifications are extracted from a broadcast signal operable to deliver the available electronic media content;

communicating with a communications system having electronic programming guide information providing details relating to the available media

10     content; and

constructing and maintaining links between the identifications of available electronic media content and related electronic programming guide information.

50.     The method of claim 49 comprising displaying multiple levels of

15     progressively more detailed information relating to the available media content, wherein a user selecting an identification of available media content receives more detailed information relating to the available media content via a link to related programming guide information.

51.     An adaptive information system, comprising:

20          a portable device having communication link to control content selection from a broadcast source;

the portable device employing an adaptive filtering algorithm that learns a user's content selection patterns;

a user information data store for storing user information, including said

25     learned content selection patterns;

said portable device affecting content selection based at least in part upon said user information.

52.     The system of claim 51 wherein said user information further includes information about the user's environment.

30     53.     The system of claim 51 wherein said user information further includes information that is derived from a source other than said broadcast source.

54.     The system of claim 1, 7, 12, 15, 20, or 24, further comprising a synchronization engine downloading supplementary information over a communications system based on identifying information extracted from media

35     content before the supplementary information is requested by a user, storing

the supplementary information in a content database, and subsequently, synchronously delivering the supplementary information with media content to which the supplementary information is related, regardless of whether a connection to the communications system is available at time of delivery.

5      55.      The system of claim 54, wherein said synchronization engine receives the media content from a source of media content other than the communications system.

56.      The system of claim 55, wherein said synchronization engine further stores the media content to which the supplementary information is

10     related for subsequent, synchronous delivery with the supplementary information, regardless of whether a connection to the source of media content is available at time of delivery.

57.      The system of claim 56, wherein the media content to which the supplementary information is related corresponds to one level of EPG contents,

15     and the supplementary information corresponds to another level of EPG contents.

58.      The method of claim 26, 32, 37, 40, 45, or 49, further comprising:

downloading supplementary information over a communications system based on identifying information extracted from media content before the

20     supplementary information is requested by a user, wherein the source of supplementary information is different from a source of media content;

storing the supplementary information in a content database; and

subsequent to downloading and storing of the supplementary information, synchronously delivering the supplementary information with

25     media content to which the supplementary information is related, regardless of whether a connection to the communications system is available at time of delivery.

59.      The method of claim 58, further comprising receiving the media content from a source of media content other than the communications system.

30     60.      The method of claim 59, further comprising storing the media content to which the supplementary information is related for subsequent,

synchronous delivery with the supplementary information regardless of whether a connection to the source of media content is available at time of delivery.

61.　The method of claim 60, wherein the media content to which the supplementary information is related corresponds to one level of EPG contents,

5　the supplementary information corresponds to another level of EPG contents.

62.　The system of claim 1, 7, 12, 15, 20, or 24, further comprising a handwriting matching engine that analyzes user handwriting inputs character by character using a progressive search that removes search results from and adds search results to a list for final selection as new characters are entered

10　and combined with previously entered characters in a search string, wherein character misrecognition and non-recognition are accommodated by adding misrecognized and non-recognized user handwriting inputs to the search string and looking for approximate matches.

63.　The method of claim 26, 32, 37, 40, 45, or 49, further comprising:

15　analyzing user handwriting inputs character by character using a progressive search that removes search results from and adds search results to a list for final selection as new characters are entered and combined with previously entered characters in a search string, wherein character misrecognition and non-recognition are accommodated by adding

20　misrecognized and non-recognized user handwriting inputs to the search string and looking for approximate matches.

AMENDED SHEET,